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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,531	01/26/2001	Kunikazu Yoda	JP919990248-US1	6777

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EXAMINER	
NGUYEN, MINH CHAU	

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/770,531	YODA ET AL.	
	Examiner	Art Unit	
	MINH-CHAU N. NGUYEN	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 January 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

MN

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1, 7 are objected to because of the following informalities: "the size of the data in a said packet" (page 33, line 10-11 and page 35, line 17-18). Cannot say "a said packet". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 2, 6-9, 15 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject

matter "comparing the size of the data in a packet", "comparison step includes a step of calculating a different between a first series and a second series", and "determine whether said first connection and said second connection are to be included in the same chain" which were not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, without undue experimentation.

5. Regarding claims 1, 6-9, 15 and 16, it is unclear what Applicant is intended by "comparing the size of the data in a packet" and how it causes "said first connection and said second connection are to be included in the same chain".

6. Regarding claims 2, 9, and 16, it is unclear what Applicant is intended by "comparison step includes a step of calculating a different between a first series and a second series" and how it causes "said first connection and said second connection are to be included in the same chain".

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 2, 5-9, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 1, 6-8, and 15 recite the limitation "the size of the data" in (page 33, line 9; page 34, line 22; page 35, line 16 and 28; page 37, line 29). There is insufficient antecedent basis for this limitation in the claims.

10. Claim 5 recites the limitation "the first term" in (page 34, line 18). There is insufficient antecedent basis for this limitation in the claim.

11. In claims 1, 6-9, 15 and 16, "comparing the size of the data in a packet" is unclear and vague. It is not clearly understood then meaning of comparing the size of packet. However, it has another mean in claim 4, which is the sequence number in packet as used within the claim. For the examination purpose, examiner will interpret "comparing the size of the data in a packet" to mean the comparing the sequence number in a packet.

12. In claims 1, 6-9, 15 and 16, "said first connection and said second connection are to be included in the same chain" is unclear and vague. It is not clearly understood then meaning of connection between computers in the same link as used within the claim. For the examination purpose, examiner will interpret "determine whether said first connection and said second connection are to be included in the same chain" to mean the first packet and second packet are to be included in the same set.

13. In claims 2, 9 and 16, "a first series and a second series" is unclear and vague. It is not clearly understood then meaning of series of packet or series of message, etc. For the examination purpose, examiner will interpret "a first series and a second series" to mean the first series of packet and the second series of packet.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1, 3-8, 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Munger et al. (Munger) (US 6,502,135 B1).

15. Regarding claim 1, Munger teaches a system wherein a packet is transmitted across a network along an access chain constituted by a plurality of connections, an access chain tracing method comprising the steps of:

comparing the size of the data in a packet at the time a first connection is made with the size of the data in a said packet at the time a second connection is made (Munger teaches the send and receive IP address pair in packet is a sequence number. A comparing which compares the sequence number of the packet with the next sequence number of another packet) (Col. 15, L. 39-60 and Col. 24, L. 60 – Col. 25, L. 4-15); and

employing the comparison result to determine whether said first connection and said second connection are to be included in the same chain (Munger teaches after comparing, the sequence number of first packet and the sequence number of second packet are an expected sequence numbers of the group. Thus, these packets are in the same set) (Col. 15, L. 39-67).

16. Regarding claim 3, Munger teaches the access chain tracing method according to claim 1, further comprising steps of:

receiving first packet data that includes said data size and said detection time of said packet at said first connection (Munger teaches receiving a packet which includes a source/destination IP pair (or the sequence number) and a time stamp) (Col. 26, L. 30-35);

searching comparison packet data based on said detection time included in said first packet data that are received (Munger teaches a timer which is set in a packet is checked by the receiver. If timer is valid, that means the packet is received, and then the receiver will send an acknowledgment successful receipt of the packet. The packet has its data) (Col. 24, L. 18-38 and Col. 27, L. 25-29); and

selecting a packet at said second connection based on the search results obtained at said search step (Munger teaches selecting a next packet to be sent that base on the timer and the acknowledgment successful receipt of the previous packet) (Col. 27, L. 25-30 and Col. 24, L. 25-38) .

17. Regarding claim 4, Munger teaches the access chain tracing method according to claim 1, wherein said detection time is specified by a time stamp included in packet data, and said data size is specified by a sequence number (Munger teaches packet data which is packet header. It provides a sequence number. Besides this, a time stamp is set in the packet) (Col. 24, L. 60 – Col. 25, L. 4-15 and Col. 24, L. 33-38).

18. Regarding claim 5, Munger teaches the access chain tracing method according to claim 1, wherein said comparison step includes a step of sequentially comparing said first series with a plurality of segments of said second series that are formed by shifting the first term (Col. 15, L. 39-56).

19. Regarding claim 6, Munger teaches an access chain tracing method comprising the steps of:

recording first packet data that include the size of the data in a packet at a first connection and a detection time for said packet (Munger teaches receiving a packet data which includes a source/destination IP pair (or the sequence number) and a time stamp) (Col. 15, L. 31-37 and Col. 24, L. 33-38);

recording second packet data that include the size of the data in said packet at a second connection and a detection time for said packet (Munger teaches receiving a next packet data (that implies a second packet) which includes a source/destination IP pair (or the sequence number) and a time stamp) (Col. 15, L. 31-37 and Col. 24, L. 33-38);

transmitting said first packet data that are recorded (Munger teaches after filling the IP address pair of IP header of a packet, it will be sent out) (Col. 15, L. 21-38);

receiving said first packet data (Munger teaches router receive the IP address pair of this packet) (Col. 15, L. 39-40);

comparing said first packet data with said second packet data to determine what change there was in the size of the data in said packet at the time of said first

connection and in the size of the data in said packet at the time of said second connection (Munger teaches the send and receive IP address pair in packet is a sequence number. A comparing which compares the sequence number of the packet with the next sequence number of another packet) (Col. 15, L. 39-60 and Col. 24, L. 60 – Col. 25, L. 4-15);

employing the comparison result obtained at said comparison step to determine whether said first connection and said second connection are included in the same chain (Munger teaches after comparing, the sequence number of first packet and the sequence number of second packet are an expected sequence numbers of the group. Thus, these packets are in the same set) (Col. 15, L. 39-67); and

transmitting the determination result obtained at said determination step (Munger teaches if the packet is not a member of the set, it will be rejected. However, if it is a member of the set, it will be accepted and forward to a random TARP router) (Col. 15, L. 61 - Col. 16, L. 1-15).

20. Claim 7 lists all the same elements of claim 1, but in computer-readable storage medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 7.

21. Claim 8 list all the same elements of claim 1, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 8.

22. Regarding claim 10, Munger teaches the access chain tracing system according to claim 8, further comprising:

a receiver for receiving first packet data that includes said data size and said detection time of said packet at said first connection (Munger teaches receiving a packet which includes a source/destination IP pair (or the sequence number) and a time stamp) (Col. 26, L. 30-35);

a transmitter for transmitting the results obtained by said determiner (Munger teaches if the packet is not a member of the set, it will be rejected. However, if it is a member of the set, it will be accepted and forward to a random TARP router) (Col. 15, L. 61 - Col. 16, L. 1-15).

23. Regarding claim 11, Munger teaches the access chain tracing system according to claim 10, further comprising:

a searching unit for searching comparison packet data based on said detection time included in said first packet data that are received received (Munger teaches a timer which is set in a packet is checked by the receiver. If timer is valid, that means the packet is received, and then the receiver will send an acknowledgment successful receipt of the packet. The packet has its data) (Col. 24, L. 18-38 and Col. 27, L. 25-29); and

a selector for selecting a packet at said second connection based on the search results obtained at said searching unit (Munger teaches selecting a next packet to be

sent that base on the timer and the acknowledgment successful receipt of the previous packet) (Col. 27, L. 25-30 and Col. 24, L. 25-38).

24. Claims 12, 13 list all the same elements of claims 4,5, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claims 4, 5 applies equally as well to claims 12, 13.

25. Regarding claim 14, Munger teaches for a system wherein a packet is transmitted across a network along an access chain constituted by a plurality of connections, an access chain tracing system comprising:

a recording unit for recording packet data that include information concerning packet size and detection time (Munger teaches receiving a packet data which includes a source/destination IP pair (or the sequence number) and a time stamp) (Col. 15, L. 31-37 and Col. 24, L. 33-38);

a transmitter for transmitting said packet data to a different site for a determination to be made (Munger teaches if the packet is not a member of the set, it will be rejected. However, if it is a member of the set, it will be accepted and forward to a random TARP router) (Col. 15, L. 61 - Col. 16, L. 1-15); and

a receiver for receiving the determination result from said different site (Munger teaches TARP router maintains a receive table which contains the sequence of IP pairs is transmitted) (Col. 16, L. 56-64).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 2, 9, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munger et al. (Munger) (US 6,502,135 B1) as applied to claim 1 above, and further in view of Aoki (US 6,466,543 B1).

27. Regarding claim 2, although Munger teaches does not expressly teach the access chain tracing method according to claim 1, wherein said comparison step includes a step of calculating a difference between a first series, which is specified based on said data size and a detection time of said packet at said first connection, and a second series, which is specified based on said data size and a detection time of said packet at said second connection; and wherein, at said determination step, said difference is employed to determine said first and said second connections are to be included in the same chain. However, Munger teaches the comparison step which includes a step of compare the sequence number of the packet and another sequence number of another packet. The comparison is also base on the timer of these packets without calculating. After that, base on the comparison result, it determines either these packets are same in the set or not. Such suggestion would motivate one ordinary skilled in the art to seek a practical and effective way of doing so. Aoki

teaches the access chain tracing method according to claim 1, wherein said comparison step includes a step of calculating a difference between a first series, which is specified based on said data size and a detection time of said packet at said first connection, and a second series, which is specified based on said data size and a detection time of said packet at said second connection (Aoki teaches a step of calculating a plurality of data transmission rate which bases on packet data and sending timing. The packet data includes the sequence number of packet. This step of calculating can be used to calculate the rate for first packet and second packet, and many other packets) (Col. 3, L. 15-22)

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the step of calculating the series of packets (which base on the packet data and its timing), as suggested of Aoki, and a comparison step base on this calculation result to determine the first packet and second packet are to be in the same set or not of Munger, for calculating purposes as well as comparison purpose which would have the packet transmission rates to be accurate and also easily reject any packet not in the set.

28. Regarding claim 15, Munger teaches a network system comprising:

a first collection device for collecting first packet data that include of data in packet and a detection time, and for transmitting said first packet data (Munger teaches receiving a packet data which includes a source/destination IP pair (or the sequence

number) and a time stamp. Moreover, a receive table is provided by the TARP router to gather that information) (Col. 15, L. 31-37 and Col. 24, L. 33-38 and Col. 16, L. 56-64);

a second collection device for collecting second packet data that include the size of data in said packet and a detection time (Munger teaches receiving a packet data which includes a source/destination IP pair (or the sequence number) and a time stamp. Moreover, a receive table is provided by another TARP router to gather that information. There's many TARP router in the chain) (Col. 15, L. 31-37 and Col. 24, L. 33-38 and Col. 16, L. 56-64, Col. 8, L. 14-15); and

Although Munger teaches does not expressly teach a calculation system for comparing said first packet data with said second packet data to determine what change there was in the size of the data in said packet at the time of a first connection and in the size of the data in said packet at the time of a second connection, and for employing the comparison result to determine whether said first connection and said second connection are included in the same chain. However, Munger teaches the comparison which compares the sequence number of the packet and another sequence number of another packet. The comparison is also base on the timer of these packets without calculating. After that, base on the comparison result, it determines either these packets are same in the set or not. Such suggestion would motivate one ordinary skilled in the art to seek a practical and effective way of doing so. Aoki teaches a calculation system for comparing said first packet data with said second packet data to determine what change there was in the size of the data in said packet at the time of a first connection and in the size of the data in said packet at the time of a second

connection (Aoki teaches a calculating means for calculte a plurality of data transmission rate which bases on packet data and sending timing. The packet data includes the sequence number of packet. This calculating means can be used to calculate the rates for first packet and second packet) (Col. 3, L. 15-22)
Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the calculating means for calculate the packet transmission rates (which base on the packet data and its timing), as suggested of Aoki, and a comparison base on this calculation result to determine the first packet and second packet are to be in the same set or not of Munger, for calculating purposes as well as comparison purpose which would have the packet transmission rates to be accurate and also easily reject any packet not in the set.

29. Claims 9, 16 list all the same elements of claim 2, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 2 applies equally as well to claims 9, 16.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU N. NGUYEN whose telephone number is (571) 272-4242. The examiner can normally be reached on Monday-Friday from 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACK B HARVEY can be reached on (571) 272-3896. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh-Chau Nguyen
Art Unit: 2145
Examiner Number: 80598

MN

Patent Examiner
12/09/04